

## Character Image System

Character images are AI-generated images used to represent the characters in the game. This system is built to allow for ease of adding images after the game's release by both the developer as well as community modders.

Images are stored in the *characters* subdirectory of the SCW data directory. For convenience, the official images are grouped in directories with 50 characters per directory. So for men, they are in the directories *scw\_males1*, *scw\_males2*, etc. And for women its *scw1*, *scw2*, etc. There's also a *Defaults* directory which contains some special character images. Community-created images should be stored in directories with names that don't start with *scw*. However, there's no minimum or maximum number of images that may be stored in a particular directory.

Each standard character has 7 or 13 images associated with them, depending on their gender. Male characters have 7 and female characters have up to 13. Each image is called a “pose” although they are all usually the same or similar pose. What's different is what they are wearing. (Initially it was supposed to be an image for different poses and then clothing was going to be a different layer but that proved impractical for now. But the term “pose” was too ingrained and stuck.)

The 7 poses for men also apply for women. Women have 6 additional poses. The 13 poses are:

1. Nude [nude]
2. Topless [tl] - (women only) wearing panties or a bikini bottom usually)
3. Underwear [uw] - boxers/briefs for men, panties and bra for women usually)
4. Swimsuit [ss] - (women only)
5. Fun [fun] – workout or lounging around clothes, like shorts and a t-shirt
6. Casual [cas] – casual clothes, jeans and polo shirts/blouses
7. Business casual [bc] – nicer than casual, slacks and long sleeve shirt for men, skirt and blouse for women
8. Business [biz] – business suits
9. Strip 1 [s1] – (women only) entertainer outfit 1
10. Strip 2 [s2] – (women only) entertainer outfit 2, more revealing than strip 1
11. Strip 3 [s3] – (women only) entertainer outfit 3, more revealing than strip 2
12. Pregnant [preg] – (women only) with a swollen pregnant belly.
13. Headshot [head] – a thumbnail headshot

The labels inside [brackets] are the codes that identify each pose in the filename. All the meta data about an image is stored in the filename itself. There's no master data file that provides this info. This is to make the system as distributed as possible. But it means that the naming scheme is very strict.

Note that while all the characters in the official SCW image packs contain their full allotment of poses (except for the pregnancy ones), it is not necessary that all poses be defined. However, a bare minimum of the headshot, casual, underwear and nude is required for proper operation. If those poses are missing the game will continue to run but the text and the images may not be in sync and default images may be plugged in. If the headshot image is missing, the corresponding poses are ignored and not loaded. Missing images and other issues reading these files will be logged into the output log file.

There are some special characters which are used for some particular storylines that do not have all their poses because they can only be interacted in specific ways. These character images are stored in the *Defaults* subdirectory. For example, the policeman that shows up every once in a while is one such special character. He won't appear or interact other than on scenes that specifically call for him in his role as a cop. As such we only need the one image of him in his policeman uniform.

## Character Image Details

Other than the headshots/thumbnails, the images have a size of 512x800 pixels. Different sizes are allowed, but the system will fit them in spaces of that size at most. So any larger than that and it's a waste, any smaller and it would be lower quality. Sometimes the images may be shown at a slightly reduced size, but using the same aspect ratio. If using smaller images than the default size, try to get the aspect ratio as close as possible to avoid distortion.

Headshots are 120x160. In general they are the same scale as the full images. The size itself doesn't matter much as long as it follows a 0.75:1 aspect ratio. Although again, making them larger is just wasteful.

Non-headshot images should be full body or from the knees up. And the vast majority of the images are people standing facing the camera. A few are from the side and tiny number are from behind with the person looking back at the camera. There are also a small number where the character is sitting, kneeling or squatting. The AI image generator is not as good with the non-standing poses.

Images must be in PNG format with their background being transparent. This unfortunately makes them much larger size-wise than a corresponding JPG but transparent backgrounds is a necessity. Only files with a .png extension will be considered. Any other files in those directories will be ignored.

## Character Image Filenames

The headshot is the main image of each character. This provides the most info about the image and the characters to which it can be attached to. The format of the headshot image files is *modkey-id-reqphys-optphys-imgphys-x-head.png*. The filename has 7 components, separated by dashes. Each of these components is explained here:

- *modkey*: This is short code identifying what package the image belongs to. All the basic (vanilla) game images will have the modkey "scw". Anyone that creates images may do so using a hopefully unique modkey (and different from 'scw'). To make things easier to manage, the modkey should also be used as the start of the directory name where the images are. This key must be added to the image\_module config value entry for the game to recognize it. See the section below for more details.
- *id*: This is a 5-digit, zero-padded number. Each image should get its own unique number. Internally images are identified by the concatenation of the modkey and the id. If the system finds two or more files with the same modkey + id, it will only save the last one it loads. Each mod can have whatever numbering scheme they desire since the numbers can be shared between mods as long as they have a different modkey. For the base game images, male images begin with a 1 (10000 and above) while female ones start at 0. Special characters begin with a 9.
- *reqphys*: This is where things get a bit tricky. This is the first of the 3 components that match the image to the character physical attributes. This first set is the required attributes. It's a 3-letter code that indicates the gender, ethnicity and age group of the character. Only characters that match those attributes can use this image. This way a black 40 year old man will never get the

image of a asian 20-year old woman. Gender is specified with *m* or *f* (obvious), age is a number 1-5 (age groups 18-24, 22-31, 28-42, 38-51, 48+) and ethnicity is one of *w*, *b*, *h*, *a* or *r* (white/caucasian, black, hispanic/latin, asian or middle-eastern). Note that the age groups do overlap. For example 'f3h' refers to a 30-something hispanic female.

- *otpphys*: This is the second of the physical attributes components. These are suggested ones. When looking for an image for a person, the required parameters (gender/age/ethnicity) must be met. These one don't have to, but the system will pick the one that comes closest to the person's attributes. There are 5 attributes here: height, body shape, hips/butt size, breast/penis size and skin tone. For height the values are *t*, *m*, *s* (tall, medium and short). Note that the images don't do a great job of conveying height due to the lack of context in the form of other objects so this is usually the least important. Body shape is one of *s*, *n*, *c* or *f* (slim, normal, curvy and fit). Note that most normal images are fit by any common definition of fit, but fit here is usually very muscular characters, not just in good shape. Hips/butt size is one of *s*, *m*, *l* (small, medium and large). And breast/penis size is one of *s*, *m*, *l* and *h* (small, medium, large and huge/unrealistically large). Obviously the breast applies to women and the penis applies to men only. There's not support for women with dicks in this game at this time, if and when we add that we will need to change this somehow. Finally skin color is pretty generic, with values being *l*, *m* and *d* (light, medium and dark). Almost all caucasian and asian characters have light skin, black ones have dark skin and latin and middle eastern have medium skin.
- *imgphys*: These are the physical components that don't play a role in game play other than to add flavor. So a character will inherit these values from the image when they are assigned an image. The 3 attributes in this group are: hair color, hair length and eye color. Hair and eye color values are *l*, *m* and *d* (light, medium and dark) while hair length is *b*, *s*, *m* and *l* (bald, short, medium and long).
- *special*: The 6<sup>th</sup> field is 'x' for all standard characters. For special characters we use this field to define their specialness. For example, the cop will have 'police' as the value in this field.
- *pose*: The 7<sup>th</sup> field is always 'head' and specifies that this is the headshot.

Non-headshot images have shorter filenames, to avoid duplication from the headshot. The file name format for these is *modkey-id-rev-pose.png*. The first two fields *modkey* and *id*, must match that of a headshot image and it's used to link all the pose images for a given character.

The *rev* field indicates how revealing is what the character is wearing. This is a somewhat subjective value that goes from 0 (totally modest) to 12 (very immodest). The general rules about this field are: most underwear poses are 3, although sheer ones may be higher. Standard nude poses are given a value of 9, although spread open vaginas and erect penises would be higher. Topless poses (for women) are a 6. Most swimsuits are 2, while sexy clothing but not revealing much are 1.

Some of the older images do not have the value in the *rev* field. In this case, the default revealing value for that pose is used. For example, business, business casual, casual, fun have a default revealing value of 0. Swimsuit is 2, underwear is 3, topless is 6, nude is 9. This practice has been discontinued and new images should explicitly set their reveal value.

The average revealing factor of the main poses is combined to create an overall lewdness of the character image set (main poses are fun, casual, business casual and business). The system will try to assign images sets to characters with a lewdness attribute that fits the image set. This has more weight than any of the optional physical attributes (height, body shape, etc.). Sometimes the character physical attributes will be modified to better fit the image, but the lewdness will not. If you make images that are too lewd, they may never get used.

Finally the pose field indicates the pose itself using the codes listed above, like 'biz' for business and 'tl' for topless.

### **Recognizing New Images**

After creating the new images, you need to tell the game about them. To do this you need to add the modkey you used for your images to the user\_config.dat file like this:

```
image_modules string scw,modkey
```

Where *modkey* is the prefix you used for your images. The order doesn't matter. Make sure to include "scw" otherwise the standard game images won't show up and the game likely won't work.

### **Additional Images**

Starting with version 1.01, the system will allow multiple images for each pose, as long as they have a different revealing value. For example, you can have a character have two casual images, one with a z-value of 0 and another with a z-value of 2. The game will then pick which image to use based on context and the character's personality.

### **Pregnant Images**

Starting with version 1.07 the system supports images for pregnant characters. These will have a pose code of "preg". These will behave differently in that the clothing should be somewhat generic. Different types of clothing can be used by using different revealing values.

Now creating a pregnant version of every image is completely impractical, so the rules to when to use the pregnant images will change. If the character is deemed to be pregnant enough to be showing, and there's a pregnant image available that's close enough in reveal value, it will use that. Otherwise it will use the non-pregnant one. The difference in reveal value must be 4 or less. For example, if there are 2 pregnant images, with reveal values of 1 and 9, and the system wants a topless image (normally reveal=6), then it will use the nude pregnant image. If it wants a standard casual image (reveal=0), it will use the one with reveal value of 1. If it wants one with reveal value of 5, it will use whichever it found first, since they are at both a 4 point difference.

### **A Few Additional Tips**

Some additional tips for better results:

1. Nude images should have a revealing value of at least 9. Setting it to less than that will have the game not-recognized them as being fully nude in some scenes (like the stripper not undressing scene). All non-nude images should have a z-value less than the nude image. Otherwise you may get a situation where a nude character undresses to a pose wearing some clothes.
2. Topless images should be at least 6. For women, a z-value of 6 would indicate that they are topless. The z-value is what's used to determine when someone is dressed legally, so again, it's important that the images match the z-values in this respect.
3. Images in soft light (i.e. without areas in direct sunlight/shadow) work best.
4. Removing the background of an image is tricky and often leaves a halo around an image. The halo annoys me, specially around the hair, but attempts at removing it tend to make things worse.

5. Images should be facing the camera, it's ok if they are from the side or behind, but it works better if they have their heads turned towards the camera.
6. When creating images sets, resist the temptation to make all images very revealing. At least one of the 4 daily wear images (fun, casual, bc, biz) should have a revealing value of 0 or 1. Otherwise some characters may not find anything to wear and the results could be weird. Like wearing a swimsuit to work.
7. When running out of images and the system can't find an appropriate image for a character, it may reset some of the character's physical attributes (height, body shape, hip size, breast/penis size only) in order to better match an image set. Gender, age, ethnicity, skin color and lewdness will not be changed no matter what.
8. There's no good way to override an existing image. You would need to actually either delete all the images associated with it or replace them. Creating an image set with the same name in another directory means that the last one read in will be the one taking precedence. At this time there's no way to enforce any precedence, although that will change in the future.
9. The images in the *Defaults* directory can be overridden, but they should not be deleted. Deleting them will result in no image being displayed. This directory contains two types of images: the masked images and images for special-purpose characters that can only be interacted in specific scenes. The masked images are used when there's no available image to show for a character (i.e. we ran out of images for that particular gender and ethnicity) or when you have a contact that you haven't yet met face to face (for example, your sibling recommended someone for an interview). Until you met them face to face you won't know what they look like and the masked image will be used.
10. If you do add your own images, when you restart the game, check the log file (typically under (C:\users\<YOURNAME>\AppData\LocalLow\Total Fluke Studios\StripClubWars) for any errors. If it was unable to load any of your images, there should be an error towards the top of the log file. Images are only read in at game start, so you must restart the game to see any changes.
11. When creating pregnant images, concentrate first on the nude image and then a revealing 1 image. That creates coverage for the entire spectrum. After that a level 3 (underwear) and level 6 (topless) would be the next more appropriate ones.